REMARKS

Applicant appreciates the time taken by the Examiner to review Applicant's present application. This application has been carefully reviewed in light of the Official Action mailed January 5, 2005. Applicant respectfully requests reconsideration and favorable action in this case.

Specification Objections

The specification stands objected to as failing to comply with 37 C.F.R. § 1.56. Applicant has updated the serial number of the Provisional Patent Application to which the present application claims benefit. Accordingly, withdrawal of this objection is respectfully requested.

Claim Objections

The numbering of the Claims is not in accordance with 37 C.F.R. § 1.126. There is no Claim 11 present in the originally filed papers. Applicant has corrected the numbering of the claims (i.e. Claims 12-17 are now 11-26, reference to Claim 12 in the originally filed patent application is now reference to Claim 11, etc.).

The Examiner pointed out that Claim 20 "generic Objection" in Claim 20 should read "generic objects". Applicant has amended claim 20 accordingly. Therefore, withdrawal of this objection is respectfully requested.

Drawing Objections

Applicant submits three sheets of Replacement Drawings to replace the six sheets of drawings in the original application. These Replacement Drawings are intended to increase the quality of the drawings. FIGURES 1, 2 and 3 have been combined into Replacement Sheet 1, FIGURES 3 and 5 into Replacement Sheet 2 and FIGURES 6 has been placed on Replacement Sheet 3. We submit that these Replacement Drawings do not add to or amend the FIGURES but merely clarify the FIGURES.

Rejections under 35 U.S.C. § 112

Claims 5, 13 and 23 stand rejected under 35 U.S.C. § 112, second paragraph. Applicant respectfully traverses this rejection. Claim 5 recites, for example, that "set of generic objects is based upon an industry standard for workflow management." Thus, the generic objects can be defined based on a reference model provided by an industry standard setting body. In the workflow area, for example, the Workflow Management Coalition promulgates standards for workflow management. Those of skill in the art would be familiar with these standards and, based on the application as filed, understand how to construct a set of generic objects based on the reference models provided by the Workflow Management Coalition. *See,* ¶ 0037. As one of skill in the art would be familiar with Workflow Management Coalition, he or she would be able to construct a generic object model based on reference models provided by that body. However, it should be noted that present invention is not limited to standards set by the Workflow Management Coalition, but can incorporate new industry standards as they promulgated by other groups. Applicant therefore believes that Claims 5, 13 and 23 are sufficiently definite and request withdrawal of the rejection.

Rejections under 35 U.S.C. § 103

Claims 1-2, 5-7, 91-10, 13-15, 17-20 and 23-25 stand rejected as obvious over U.S. Publication No. 20030023662 ("Yaung") in view of U.S. Publication No. 20030005406 ("Lin").

Claim 1 as amended recites a public API for a set of heterogeneous workflow engines and "a plurality of adapters, each adapter configured to interface with a workflow engine API, wherein each workflow engine API is associated with an underlying workflow engine from a set of heterogeneous workflow engines . . . wherein each adapter is operable to map said set of generic objects to a set of native objects for a corresponding underlying workflow engine." Thus, in Claim 1, the adapters map the generic objects of the public API to APIs of at least two different types of workflow engines (i.e., heterogeneous workflow engines). Consequently, the same public API can be deployed for multiple types of workflow engines. In this manner, the same application can utilize the same public API to access multiple workflow engines that may themselves have different APIs.

The Examiner cites Yaung as teaching translating methods for server side object native code used by a workflow and Lin as teaching a workflow/data store API mapping that provides access to vendor specific data store APIs through a work flow. Applicant submits that the portions of Yaung and Lin cited by the Examiner, alone or in combination, however, do not teach a public workflow engine API that allows a single application to interface with multiple workflow engines.

Instead, Yaung teaches a system that allows clients to utilize a particular workflow engine and other services. In this case, it is the services rather than the workflow engines that are heterogeneous. Furthermore, the heterogeneous services are not provided with a public API. More particularly, the architecture of Yaung provides an abstract service class, a WorkFlowService class and another service class type. The general service class type provides methods and objects that all services, including workflow services, must implement to make their services available to users. The abstract workFlowService class provides methods and objects that all workflows must implement and the other service class type includes methods and objects that all services that particular service type of service must implement (e.g., services that all search engines must implement). The WorkFlowService server side class 506 and the WorkFlowService client side class 508 provide the methods and objects <u>for one vendor implementation of a work flow service</u>. The WorkFlowSerivice service side class 506 and WorkFlowService client side class 508 inherit objects and methods from the WorkFlowService class (as these objects and methods are used by all workflow services) and the generic service object (as these objects and methods are used by all services).

In FIGURE 7, each client 550 includes a workflow service object 552 instantiated from the WorkFlowService client side class (i.e., the vendor specific class). The workflow server 556 includes a workflow service object (server) side 558 that maintains information <u>on a particular vendor implementation of a workflow engine</u>. Methods invoked in on the client side based on the vendor specific WorkFlowService client side object 552 are transferred to the workflow server. The workflow server object (again workflow engine implementation specific) then translates the methods into the native code used by the workflow engine. *See,* Yaung ¶¶122-128.

Thus, in Yaung, methods invoked by clients are workflow engine specific. The workflow server appears to translate these workflow engine specific methods into that native language used by the workflow engine. There does not, however, appear to be a public API that clients can use that has associated adapters to translate generic objects to any number of different workflow engine specific native objects. Put another way, it appears that methods generated by clients of Yaung are workflow engine implementation specific as they are based on the implementation specific workflow client object. The workflow engine implementation specific server side object then translates the methods for use by the underlying workflow engine of the particular implementation. To the extent the server side object can be considered an API, for the sake of argument, it is vendor implementation specific API. There is no teaching or suggestion, however, of a public API for heterogeneous workflow engines (i.e., workflow

engines having different implementations) that has associated adapters to translate generic objects of the public API to native objects of heterogeneous workflow engines because the server side workflow objects of Yaung are vendor implementation specific.

Lin discusses the use of workflow engine APIs to access objects in different data stores. However, in Lin, there still appears to be a single workflow engine with which the APIs are associated. Thus, the multiple data store APIs appear to map to APIs for a single workflow engine. While these APIs may allow clients to access objects from data stores, there is no public API for heterogeneous workflow engines with associated adapters that allows generic objects to be translated to native objects of multiple heterogeneous workflow engines. Moreover, there is no teaching or suggestion in Lin that the workflow APIs or data store APIs should utilize a generic object model as there is no indication in the portions cited by the Examiner as to how the mapping between workflow APIs and data store APIs is achieved.

Thus, neither Yaung nor Lin, alone or combination, teach a public API for heterogeneous workflow engines and "a plurality of adapters, each adapter configured to interface with a workflow engine API, wherein each workflow engine API is associated with an underlying workflow engine from a set of heterogeneous workflow engines . . . [and] wherein each adapter is operable to map said set of generic objects to a set of native objects for a corresponding underlying workflow engine." Accordingly, Applicant respectfully requests allowance of Claim 1 and the respective dependent claims.

Claim 9 recites "a public API comprising a set of generic objects for the heterogeneous workflow engines, a first adapter configured to map said set of generic objects to said first set of native objects [for a first workflow engine] and a second adapter configured to map said set of generic object to said second set of native objects [for the second workflow engine]." Claim 9 further recites that the first and second workflow engines are heterogeneous. Thus, as with Claim 1, Claim 9 includes a public API for heterogeneous workflow engines and associated adapters to map generic objects of the public API to native objects used by the heterogeneous workflow engines. For similar reasons as discussed in conjunction with Claim, Applicants believe that Yaung and Lin, alone or in combination, do not teach or suggest Claim 9. Therefore, Applicant respectfully requests allowance of Claim 9 and the respective dependent claims.

Claim 17, as amended, recites "creating a public API for at least two heterogeneous workflow engines comprising a set of generic objects . . . and mapping said set of generic objects to a set of native objects for each of said underlying workflow engine engines." Again, the generic objects of a public API for heterogeneous workflow engines is mapped to the native

objects of the heterogeneous workflow engines. As discussed above, however, Yuang and Lin do not teach the use of an API with generic objects that are mapped to native objects for heterogeneous workflow engines. To the extent the server side object of Yuang can be considered an API, the server side object is specific to a particular vendor implementation of a workflow engine and is not used to process methods for multiple heterogeneous workflow engines. Lin further teaches mapping of data store APIs to the workflow engine API of a single workflow engine. For these reasons, Applicant respectfully requests allowance of Claim 17 and the respective dependent claims.
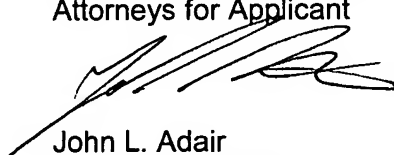
Applicant has now made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include an acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of the pending Claims. The Examiner is invited to telephone the undersigned at the number listed below for prompt action in the event any issues remain.

An extension of one (1) month is requested and a Notification of Extension of Time Under 37 C.F.R. § 1.136 with the appropriate fee is enclosed herewith.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

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IN THE DRAWINGS:

Please cancel the drawing sheets in the present Application and add the corresponding attached Replacement Sheets.